(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 23 June 2005 (23.06.2005)

PCT

(10) International Publication Number WO 2005/056783 A1

(51) International Patent Classification⁷: 15/54, C07H 5/06

C12N 9/10,

(21) International Application Number:

PCT/US2004/040844

- (22) International Filing Date: 6 December 2004 (06.12.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/527,615

5 December 2003 (05.12.2003)

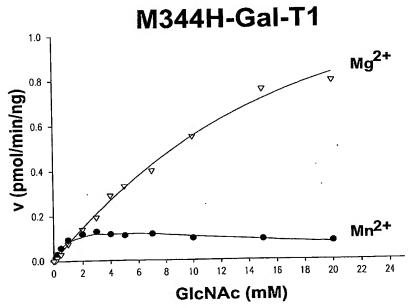
- (71) Applicant (for all designated States except US): GOV-ERNMENT OF THE UNITED STATES OF AMER-ICA as represented by the SECRETARY OF THE DE-PARTMENT OF HEALTH AND HUMAN SERVICES [US/US]; National Institute of Health, Office of Technology Transfer, 6011 Executive Blvd., Suite 325, Rockville, MD 20852-3804 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): QASBA, Pradman [US/US]; 9300 Cedarcrest, Bethesda, MD 20814 (US).

BOEGGEMAN, Elizabeth [US/US]; 17058 Catalpa Court, Rockville, MD 20855 (US). RAMAKRISHNAN, Boopathy [IN/US]; 2540 Candle Ridge Drive, Frederick, MD 21702 (US).

- (74) Agent: STEFFEY, Charles, E.; Schwegman, Lundberg, Woessner & Kluth P.A., P.O. Box 2938, Minneapolis, MN 55402 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: CATALYTIC DOMAINS OF BETA(1,4)-GALACTOSYLTRANSFERASE I HAVING ALTERED METAL ION SPECIFICITY



(57) Abstract: Disclosed are mutants of galactosyltransferases that can catalyze formation of oligosaccharides in the presence of magnesium; mutants of galactosyltransferases having altered donor and acceptor specificity which can catalyze formation of oligosaccharides in the presence of magnesium; methods and compositions that can be used to synthesize oligosaccharides; methods for increasing the immunogenicity of an antigen; and methods to stabilize platelets.

WO 2005/056783 A1



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.